

USG CELEBRATION™
TORSION SPRING CEILING SYSTEM

INSTALLATION GUIDE



IT'S YOUR WORLD. BUILD IT.™

USG CELEBRATION™

TORSION SPRING CEILING SYSTEM

The USG Celebration™ Torsion Spring System is an engineered design that combines a monolithic appearance with easy access to the plenum through downward accessible panels. The USG Celebration Torsion Spring panels provide a clean, no-reveal look that completely hides the suspension system as well as maintain superior alignment throughout the ceiling system. The well-thought-out system is a sensible choice to demonstrate the beauty and precision of your design while still providing the ease of usability that the torsion spring system provides.

Notes: Follow proper safety and industrial hygiene practices while handling and installing all products and systems. Take necessary precautions and wear appropriate personal protective equipment as needed. When removing ceiling panels from grid, we recommend wearing a dust mask, cut-resistant gloves and eye protection. Provide drop cloths to cover and protect furnishings below. When using a ladder or lift, follow the equipment manufacturer's precautions, instructions and safety guidelines.

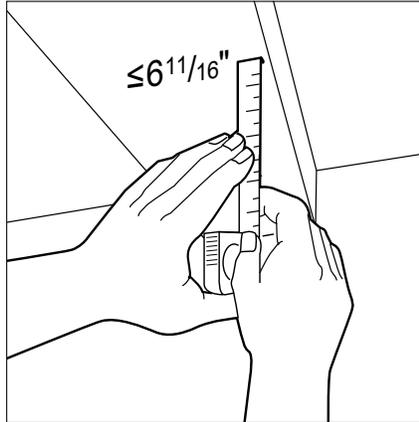
All ceiling products and systems must be installed and maintained in accordance with current USG written instructions and in compliance with ASTM C636, ASTM E580, CISCA and standard industry practices.

Care must be taken to safeguard products from damage during delivery and while they are stored at the job site. The products must always be protected from vibration, chemical fumes and direct contact with water including condensation both before and after installation.

**INSTALLATION:
WALL-TO-WALL DESIGNS**

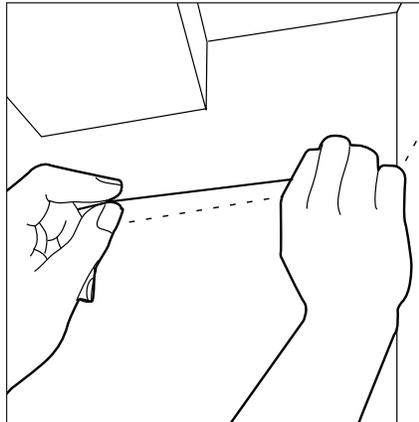
Step 1: Choose the ceiling height.

Install your ceiling at any level, as long as you maintain enough clearance (6-11/16" or 170 mm is recommended) below the lowest air duct, pipe or beam to install panels. Mark the desired height at each room corner.



Step 2a: Mark the ceiling height at the perimeter.

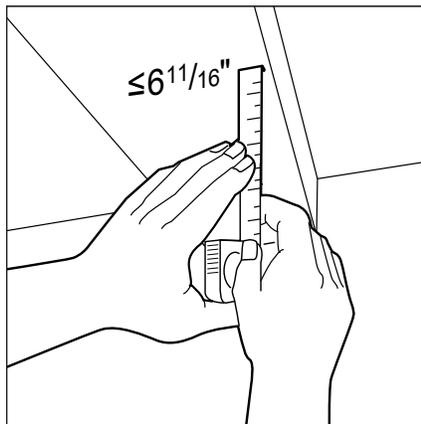
Snap a chalk line (or use a laser) around the entire room perimeter at finished ceiling height. Snap another chalk line 7/8" above the initial chalk line. This second chalk line will mark the location for the top of the lower M7 wall molding that will be used for the panel system. Check it with a carpenter's level. Measuring alone, either down from joists or up from the floor, is not recommended since neither might be level.



**INSTALLATION:
WALL-TO-WALL DESIGNS CONT.**

Step 2b: Mark the grid height 1-9/16" above the finished ceiling height.

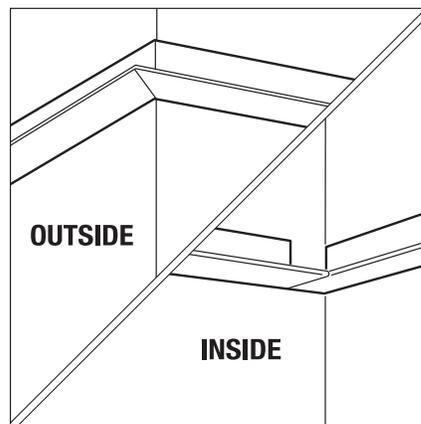
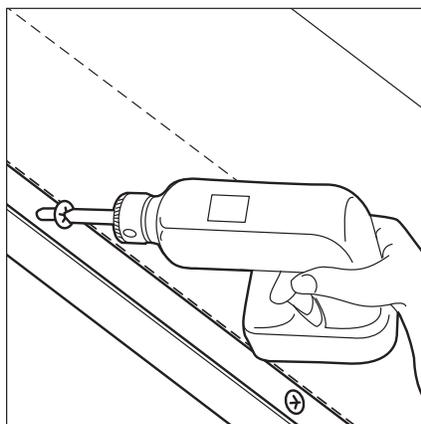
Snap a third chalk line (or use a laser) around the entire room perimeter, 1-9/16" (38 mm) above the initial chalk line. This third chalk line will mark the location for the top of another M7 wall molding necessary for the suspension system. Check it with a carpenter's level to ensure that the entire system is level.



Step 3: Install lower wall angles.

Align the top edge of the lower M7 wall molding with the second chalk line and mechanically fasten around the entire room. Mechanically fasten at each stud location or at a minimum of 24" (610 mm) on center intervals.

Note: At inside corners cut wall angles straight (90°) and butt them together. At outside corners miter them (45°) and fit snugly together or use corner caps. It is recommended to use the JS14 outside corner cap and A2 inside corner cap.

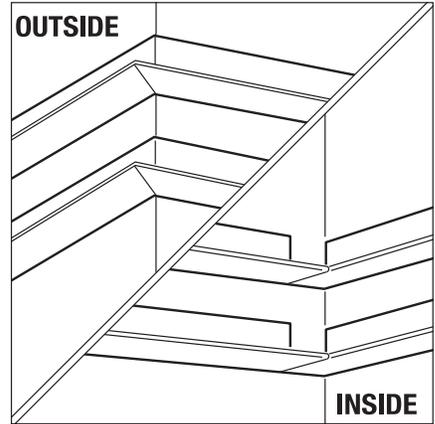
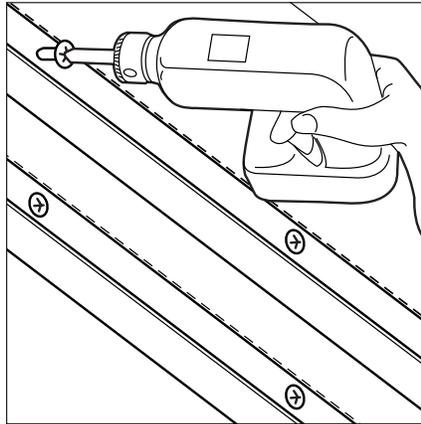


**INSTALLATION:
WALL-TO-WALL DESIGNS CONT.**

Step 4: Install upper wall angles.

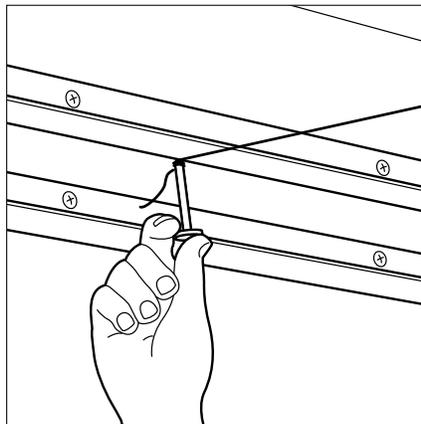
Align the top edge of the upper M7 wall molding with the upper chalk line and mechanically fasten around the entire room. Mechanically fasten at each stud location or at a minimum of 24" (610 mm) on center intervals.

Note: At inside corners cut wall angles straight (90°) and butt them together. At outside corners miter them (45°) and fit snugly together or use corner caps. It is recommended to use the JS14 outside corner cap and A2 inside corner cap. In seismic zones D, E or F, the M20 wall molding must be used instead of the M7 wall angle.



Step 5: Locate main tees.

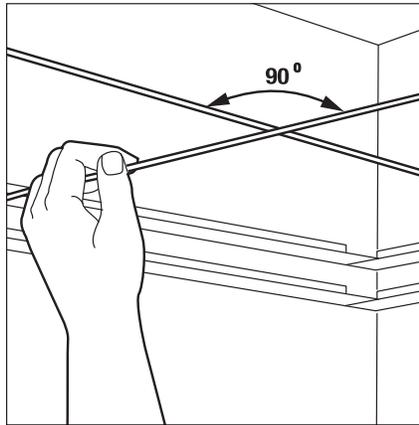
Install the dry line at the location of the first main tee, underneath the upper M7 wall angle. To do this, pull the string taut around nails that are inserted between the wall and the upper wall angle at opposite wall locations.



**INSTALLATION:
WALL-TO-WALL DESIGNS CONT.**

Step 6: Locate cross tees.

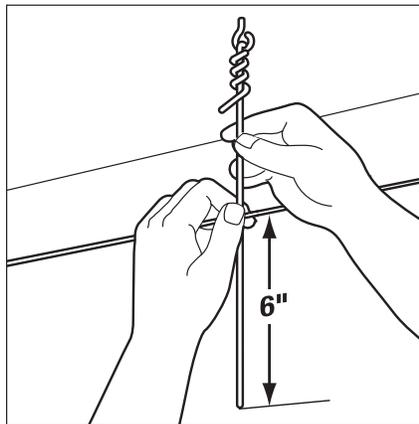
Stretch a string perpendicular to the main tee strings where you want to locate the first row of cross tees. Set laser elevation $3/4"$ above the string to determine where to bend the hanger wires (see Step 8). You only need to do this once since pre-punched slots in the main tees ensure spacing of subsequent rows of cross tees. Both strings should be squared at their intersection forming a 90° angle by using the 3, 4, 5 triangle method and located underneath the upper M7 wall angle. It is extremely important the ceiling system be square to avoid misalignment of the panels.



Step 7: Install hanger wires.

Install appropriate hanger wire attachment, such as a lag screw, at 4' intervals along the main tee string lines. Attach a hanger wire to each screw and cut 6" below the string line.

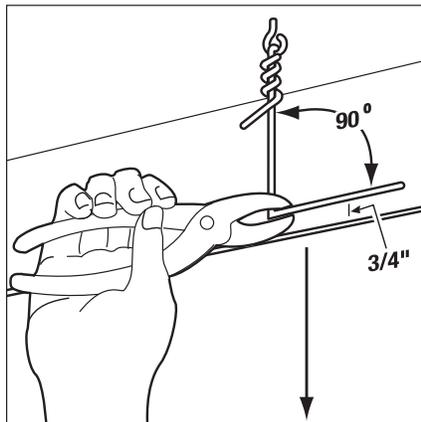
Note: Please check local seismic codes in your respective jurisdiction as placement of the hanger wires may change.



**INSTALLATION:
WALL-TO-WALL DESIGNS CONT.**

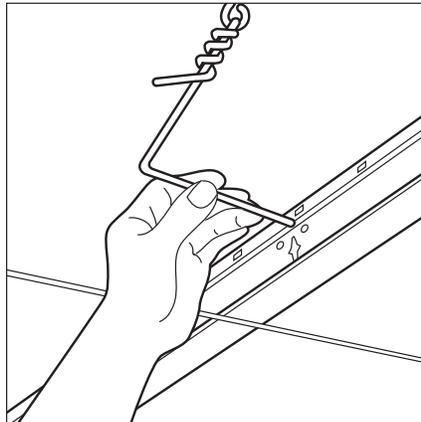
Step 8: Bend hanger wires.

Use pliers to bend a 90° angle in all hanger wires at a point 3/4" (19 mm) above the string as indicated with the laser per Step 6. If the nearest hanger hole is not directly below the screw eye, adjust the hanger accordingly.



Step 9: Align first main tees.

In each row, trim the first main tee at the wall so the slot for the first row of cross tees lines up at the string. Rest the cut end of the main tee on the wall angle.

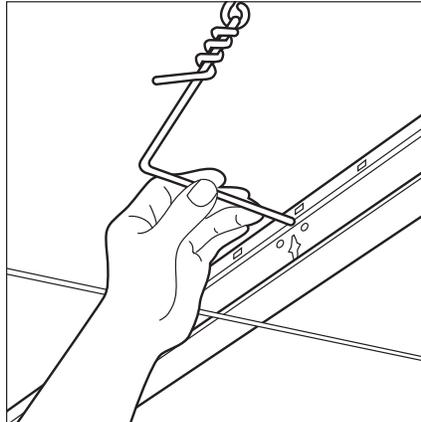


**INSTALLATION:
WALL-TO-WALL DESIGNS CONT.**

Step 10: Hang main tees.

Pull each hanger wire through a hole below the bulb of the main tee and bend up. Adjust the height of the main tees as needed and make sure that the system is level. Then tie off the wire by twisting the end 3-1/2 turns (within a 2" span).

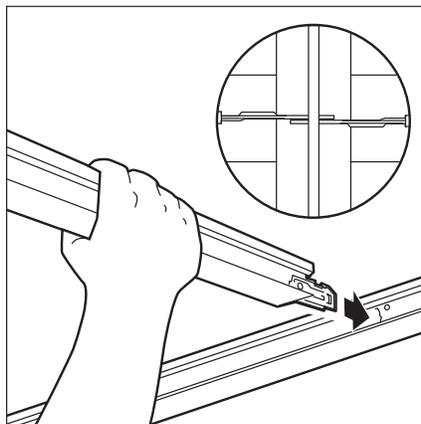
Note: In seismic zones D, E and F, the use of ACM7 Seismic Clips are needed along the perimeter of the system. Refer to *USG Donn® Brand ACM7 Seismic Clip Submittal Sheet* (AC3269) for additional information.



Step 11: Install cross tees.

After main tees are hung, install cross tees. Push cross tee end through the main tee slot until you hear a “click.” Where two cross tees intersect in the same slot, be sure to insert the second tee to the left of the first. The grid system should be checked for being square and level periodically during the installation of the cross tees and when the cross tees have been installed. **The grid needs to be square to avoid misalignment of the panels.** Secure perimeter tees to adjacent walls at 4' intervals to help maintain squareness of the system.

Note: When using cross tees along the perimeter of the installation, it is recommended to use a 4' cross tee and have it cut down to the appropriate size.

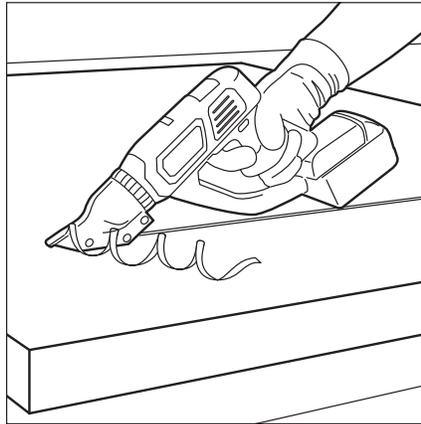


**INSTALLATION:
WALL-TO-WALL DESIGNS CONT.**

Step 12: Cut perimeter panels.

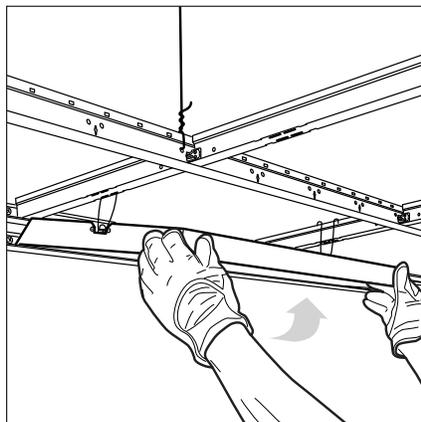
Create perimeter panels by measuring the opening from the center of the grid piece opposite of the perimeter/wall angle to the furthest edge of the perimeter/wall angle. Mark the appropriate cut points onto a full panel while paying close attention not to cut off the spring. Cut the panels utilizing a metal cutting circular saw, hand-held power shear/nibbler or hand snips. Reasonable care should be used to avoid scratching finish.

Note: Cut the panels faced up and use reasonable care in order to avoid scratching the finish.



Step 13: Install perimeter panels.

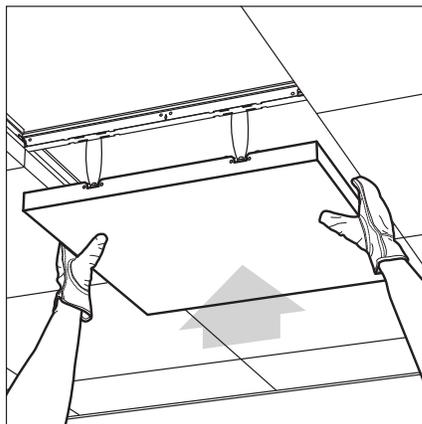
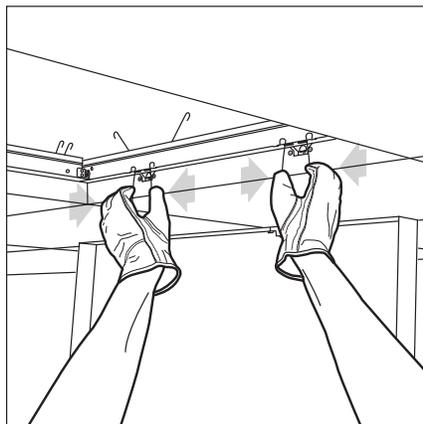
Panel installation should begin with the corner pieces followed by the panels on both sides of each corner. Place T-15 panel hold-down clips along the edge of the panels against the walls. After the corners have been installed, the remainder of the perimeter panels are to be installed. Perimeter panels are installed by first lining up springs, which are attached to the panels, to the slots located on the cross tees. Place the cut end of the perimeter piece on top of the lowest wall angle. On one side of the panel with an attached spring, squeeze together the legs of the spring and insert into the punched out holes located on the cross tees. Each leg of the spring should fit into a single hole. Once the spring hook of each spring leg is inserted, release the spring. Do the same for the opposite side of the panel with the other spring. The panel should be hanging down off of each spring with the cut edge hanging off of the wall angle. Finally, push the panel upwards by pivoting the edge opposite of the cut edge until the action of the springs work to pull the panel upwards into place. Complete the perimeter installation with the placement of the T-15 panel hold-down clips against the walls. Placement of the T-15 panel hold-down clips occur 6" from each side of the panel and every foot in between.



**INSTALLATION:
WALL-TO-WALL DESIGNS CONT.**

Step 14: Install field panels.

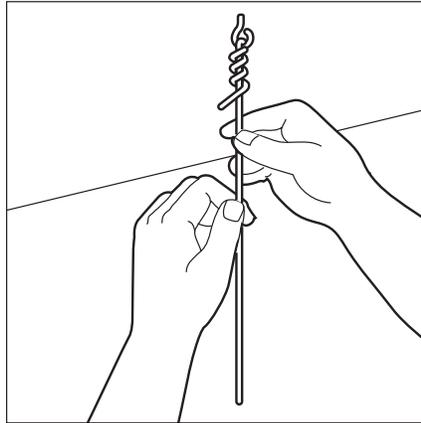
Start with one pair of springs located on the side of the panel. Align the pair of springs with the corresponding oval holes located on the cross tee. Squeeze the legs of each spring together and insert into the corresponding holes. Squeeze together the legs of each spring so each leg of the spring should fit into a single hole. Once the spring hook of each spring leg is inserted, release the spring. Repeat the insertion of the spring hooks for the opposite side of the panel with the other pair of springs. The panel should be hanging down off of each spring. Finally, push the panel upwards until the action of the springs work to pull the panel into place onto the grid. Continue to repeat this process for each panel until all of the field panels have been installed.



**INSTALLATION:
CEILING CLOUD DESIGNS**

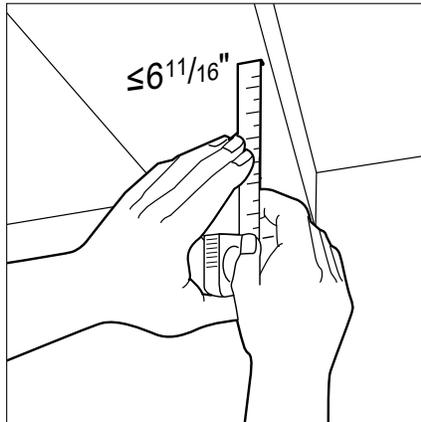
Step 1: Determine the location of the hanger wires.

For any type of cloud system, this depends on the size and configuration. To ensure proper hanger wire location, refer to *USG Celebration™ Torsion Spring Systems Guide* (IC638.) In cases where building codes require nonstructural components to be restrained, USG recommends installing supplementary restraints. Please consult with local building code authorities to determine the appropriate restraint requirements. Refer to *Seismic Technical Guide - Specialty Decorative Ceilings* (SC2494) for more information.



Step 2: Determine the finished ceiling height.

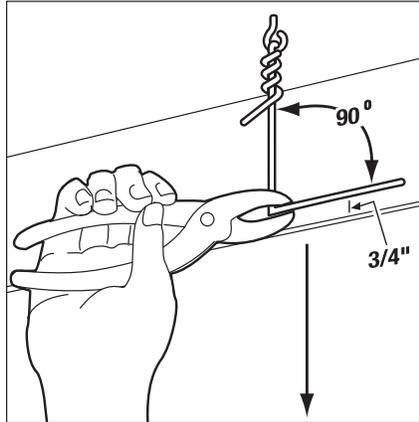
Install your ceiling at any level, as long as you maintain enough clearance ($6\frac{11}{16}$ " or 170 mm is recommended) below the lowest air duct, pipe or beam to install panels.



**INSTALLATION:
CEILING CLOUD DESIGNS CONT.**

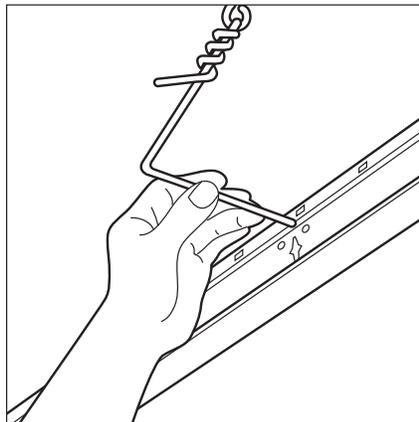
Step 3: Bend hanger wires.

Use pliers to bend a 90° angle in all hanger wires at a point 3/4" (19 mm) above the string. If the nearest hanger hole is not directly below the screw eye, adjust the hanger accordingly.



Step 4: Install the main tees.

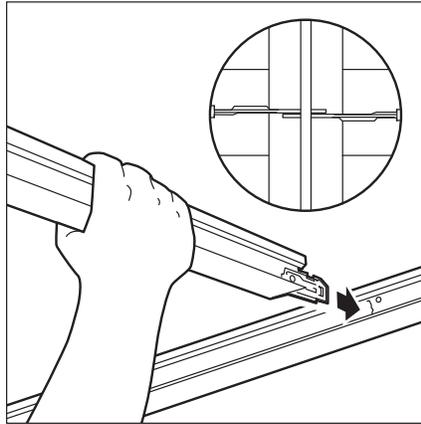
Pull each hanger wire through a round hole below the bulb of the main tee and bend up. Level, but do not tie the hanger wires. The added weight of the cross tees and trim will change the hanger wire position slightly, so it is good practice to tie the hanger wire after all of the grid and trim is installed.



**INSTALLATION:
CEILING CLOUD DESIGNS CONT.**

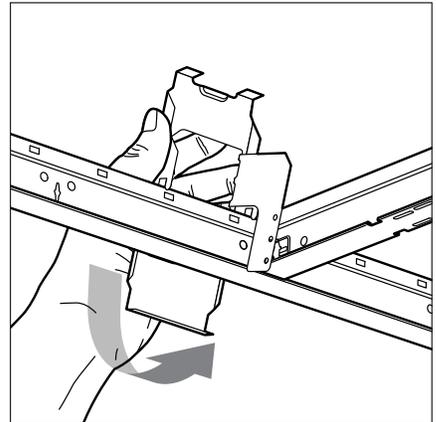
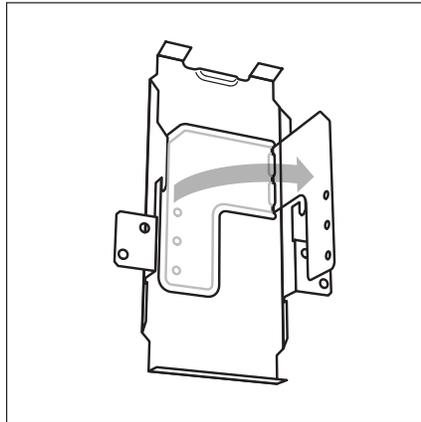
Step 5: Install cross tees.

After main tees are hung, install cross tees. Push cross tee end through the main tee slot until you hear a “click.” Where two cross tees intersect in the same slot, be sure to insert the second tee to the left of the first. The grid system should be checked for being square and level periodically during the installation of the cross tees and when the cross tees have been installed.



Step 6: Install the USG Compasso® Trim clips onto the perimeter tees.

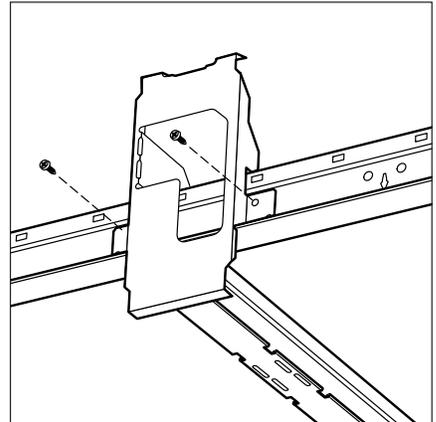
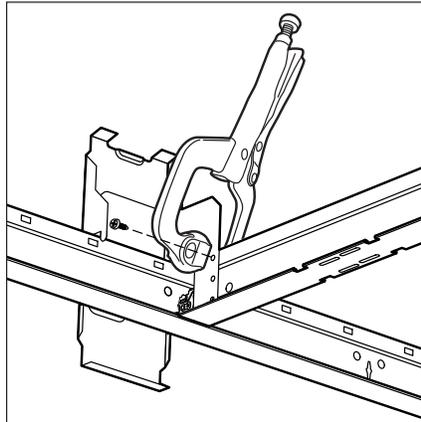
Obtain a trim clip and bend back the center cutout 90° to form a leg to assist with attachment to the suspension system. Hook each trim clip every 2' along the perimeter grid.



**INSTALLATION:
CEILING CLOUD DESIGNS CONT.**

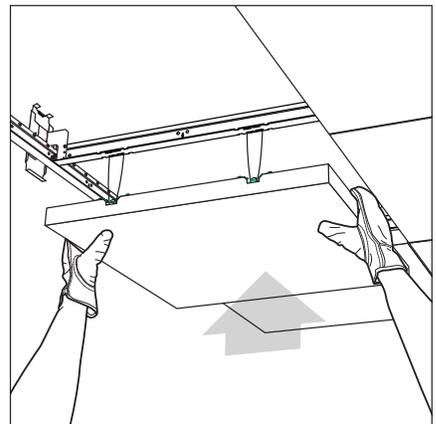
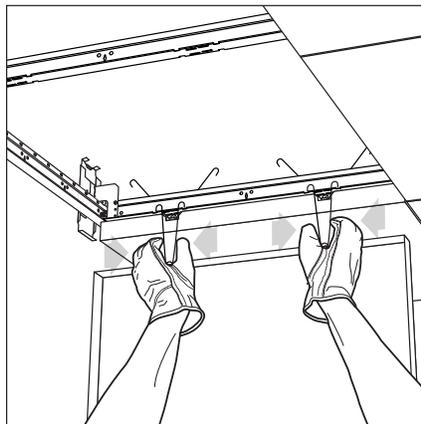
Step 7: Fasten the USG Compasso® Trim clip legs onto the main tees and cross tees.

Adjust positioning of the trim clip so the leg of the clip lies against a grid piece perpendicular to the perimeter. Temporarily clamp the clip to position. Use a hole punch to create a rivet hole. Fasten the leg of the trim clip to the tee with fasteners in order to secure it into position.



Step 8: Install perimeter panels.

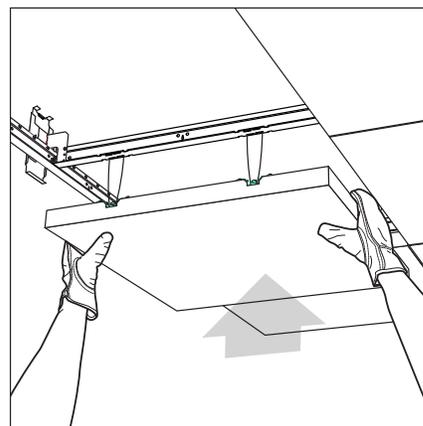
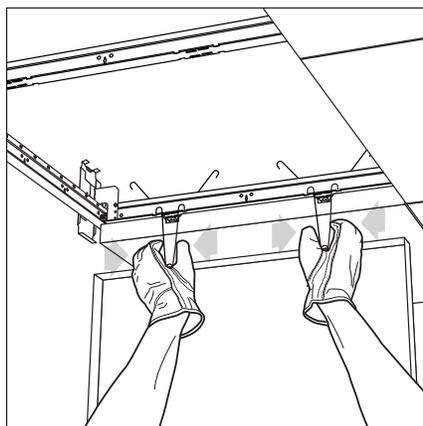
Panel installation should begin with the corner pieces followed by the panels on both sides of each corner. After the corners have been installed, the remainder of the perimeter panels are to be installed. Perimeter panels are installed by first lining up springs, which are attached to the panels, to the slots located on the cross tees. Please note that all cloud designs are on module, so there will be no cut perimeter panels. On one side of the panel with an attached spring, squeeze together the legs of the spring and insert into the punched out holes located on the cross tees. Each leg of the spring should fit into a single hole. Once the spring hook of each spring leg is inserted, release the spring. Do the same for the opposite side of the panel with the other spring. The panel should be hanging down off of each spring. Finally, push the panel upwards by pivoting the edge opposite of the cut edge until the action of the springs work to pull the panel upwards into place.



**INSTALLATION:
CEILING CLOUD DESIGNS CONT.**

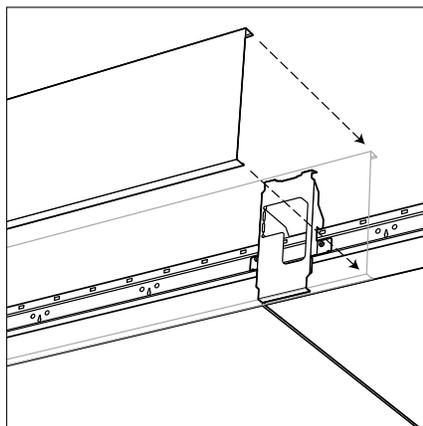
Step 9: Install field panels.

Start with one pair of springs located on the side of the panel. Align the pair of springs with the corresponding oval holes located on the cross tee. Squeeze the legs of each spring together and insert into the corresponding holes. Each leg of the springs should fit into a single hole. Once the spring hook of each spring leg is inserted, release the spring. Repeat the insertion of the spring hooks for the opposite side of the panel with the other pair of springs. The panel should be hanging down off of each spring. Finally, push the panel upwards until the action of the springs work to pull the panel into place onto the grid. Continue to repeat this process for each panel until all of the field panels have been installed.



Step 10: Install the USG Compässo® Trim onto the trim clips.

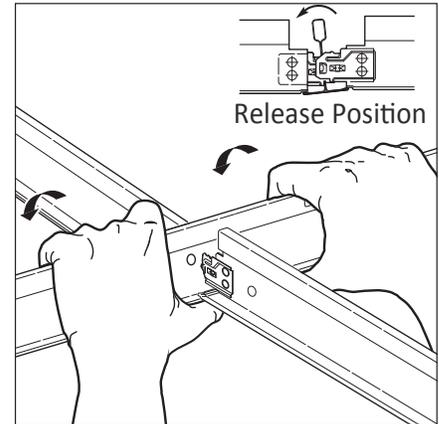
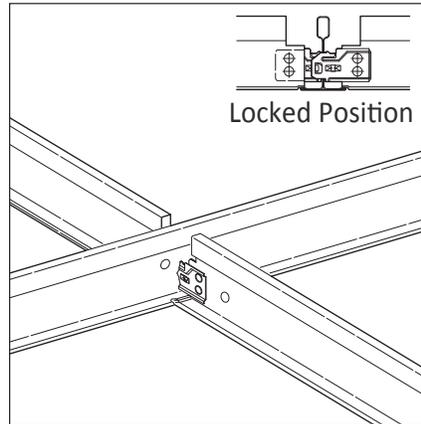
Snap the USG Compässo® trim onto the trim clip to finish the perimeter of the system. Secure the suspension system with the hanger wires by twisting each end 3-1/2 turns (within a 2" span). For additional information on the installation of Compässo Standard, refer to the *USG Compässo Ceiling System Installation Guide* (IC464) and the *USG Compässo Standard Suspension Trim System Tip Sheet* (IC588).



TIPS

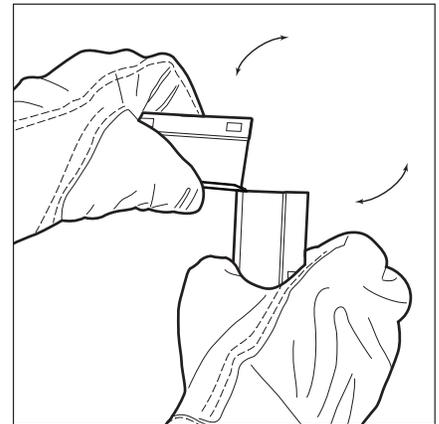
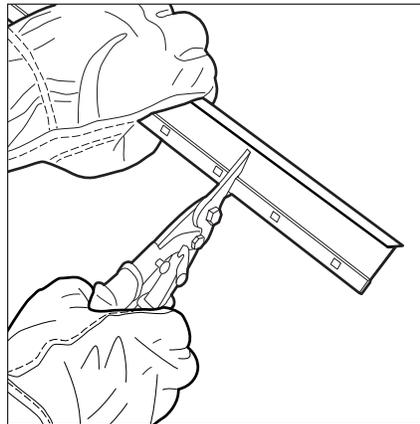
Removing Cross Tees

Twist the top of the main tee away from the cross tee you want to remove and push up with your thumbs.



Cutting Tees

Cutting tees is easiest with metal snips. Only two cuts are needed. First, cut the bulb stem, and then bend the tee at the cut. Bend the tee over at a 90° angle. Then make one cut straight through the face of the tee. If metal snips are not available, use a hacksaw to saw down from the bulb through the stem and flanges. Sand or file rough edges smooth.



PANEL MAINTENANCE

Metal ceiling panels create contemporary spaces with unique visual impact in retail, hospitality, office, education and entertainment environments. These ceilings consist of preformed metal infill panels and a corresponding USG Donn® Brand suspension system.

Proper preparation and cleaning can help to maintain the panels' original appearance. Before installation, remove any dirt and debris from the surrounding area.

PREPARATION

Metal panels, especially those with the Anodized Aluminum finish, may arrive at the job site with a protective PVC film applied to the surface. This film should be removed prior to panel installation; simply peel up at one corner and pull away from the panel face. Do not leave film attached to panels for more than 90 days as it will become increasingly difficult to remove.

CLEANING

Wipe panels with a clean, soft cloth to remove dust. For more difficult residue, wash panels with a mild soap or detergent (see Compatible Cleaners below) and lukewarm water, using a clean sponge or soft cloth. Rinse well with clean water. Dry thoroughly with a chamois or moist cellulose sponge to prevent water spots. Do not scrub or use brushes.

To remove fresh paint splashes, grease or smeared glazing compounds, rub panels lightly with VM&P naphtha or isopropyl alcohol. Wash with warm water and a mild soap or detergent solution. Rinse thoroughly with clean water and dry.

Important: Use care when cleaning perforated panels with an acoustical backer laminated to the back surface. This backer must not be immersed in or saturated with water.

COMPATIBLE CLEANERS

Harsh solvents such as methyl ethyl ketone (MEK) or muriatic acid can cause surface degradation and crazing. Use only the following mild cleaning agents:

- Joy® dishwashing detergent
- Palmolive® dishwashing liquid
- Windex® glass cleaner

Follow the manufacturer's instructions and recommendations when using these products.

LIMITATIONS

- Do not use abrasive or highly alkaline cleaners.
- Do not scrape panels with squeegees, razor blades or other sharp instruments.
- Do not use benzene, gasoline, acetone, carbon tetrachloride or butyl cellosolve.

PRODUCT INFORMATION

See usg.com for the most up-to-date product information.

Additional Product Information:
Data Sheet: IC622
System Guide: IC638

CUSTOMER SERVICE

USG 1-800-950-3839
CGC 1-800-387-2690

TECHNICAL SERVICE

1-800-USG-4YOU (874-4968)

WEBSITES

usg.com
cgcinc.com
usgdesignstudio.com
cgcdesignstudio.com

INSTALLATION

The products and systems presented in this guide must be installed in compliance with ASTM C636, ASTM E580, CISCA and standard industry practices, within all applicable code requirements. Alternative assemblies and installation methods may be utilized when approved by the Authority Having Jurisdiction. USG recommends checking with the Authority Having Jurisdiction prior to designing and installing a suspended ceiling system.

CODE COMPLIANCE

The information presented is correct to the best of our knowledge at the date of issuance. Because codes continue to evolve, check with local officials prior to designing and installing a ceiling system. Other restrictions and exemptions may apply. This is only intended as a quick installation reference.

NOTICE

We shall not be liable for incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or for other than the intended use. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within thirty (30) days from date it was or reasonably should have been discovered.

SAFETY FIRST!

Follow good safety/industrial hygiene practices during installation. Wear appropriate personal protective equipment. Read SDS and literature before specification and installation.